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2004

## Nebraska Summary S450: Case IH JX 1060C

Nebraska Tractor Test Lab

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# SUMMARY OF OECD TESTS 2156 and 2157—NEBRASKA SUMMARY 450

## CASE IH JX 1060C DIESEL

### 16 SPEED

#### POWER TAKE-OFF PERFORMANCE

Power HP (kW)	Crank shaft speed rpm	Gal/hr (l/h)	lb/hp.hr (kg/kW.h)	Hp.hr/gal (kW.h/l)	Mean Atmospheric Conditions
<b>MAXIMUM POWER AND FUEL CONSUMPTION</b>					
Rated Engine Speed (PTO speed—565 rpm)					
47.2 (35.2)	2299	3.02 (11.42)	0.447 (0.272)	15.63 (3.08)	
Maximum Power (2 hours)					
48.3 (36.0)	2224	3.01 (11.41)	0.437 (0.266)	16.01 (3.15)	
Standard Power Take-off speed (540 rpm)					
47.3 (35.3)	2198	2.97 (11.23)	0.439 (0.267)	15.94 (3.14)	
<b>VARYING POWER AND FUEL CONSUMPTION</b>					
47.2 (35.2)	2299	3.02 (11.42)	0.447 (0.272)	15.63 (3.08)	Air temperature
41.8 (31.2)	2395	2.60 (9.86)	0.436 (0.265)	16.06 (3.16)	75°F (24°C)
31.5 (23.5)	2410	2.23 (8.46)	0.495 (0.301)	14.11 (2.78)	Relative humidity
21.3 (15.9)	2438	1.80 (6.80)	0.591 (0.359)	11.84 (2.33)	62%
10.7 (8.0)	2461	1.30 (4.92)	0.847 (0.515)	8.25 (1.63)	Barometer
--	2487	0.90 (3.39)	--	--	30.1" Hg (102.1 kPa)
--			--	--	
Maximum Torque -146.8 lb.-ft. (199.1 Nm) at 1280 rpm					
Maximum Torque Rise -36.1%					
Torque rise at 1850 engine rpm -14%					

**Location of tests:** Alma Mater Studiorum, University  
Di Bologna, Via Gandolfi, 19-40057, Cadriano,  
Bologna, Italy

**Dates of tests:** March, 2004

**Manufacturer:** CNH America LLC, 700 State St.  
Racine, WI. 53404 USA

**FUEL and OIL:** Fuel No. 2 Diesel Specific  
gravity converted to 60°/60°F (15°/15°C) 0.840  
Fuel weight 6.99 lbs/gal (0.838 kg/l) Oil SAE 15W40  
API service classification CF-4/SG Oil  
consumption for 10 hours 0.03 lb (15 gm)  
Transmission and hydraulic lubricant Akcela  
Nexplorer 130 Front axle lubricant Akcela  
Nexplorer 130

**ENGINE:** Make Iveco Diesel Type three cylinder  
vertical Serial No. 858976 Crankshaft lengthwise  
Rated engine speed 2300 Bore and stroke 4.094"  
x 4.528" (104.0 mm x 115.0 mm) Compression ratio  
18.0 to 1 Displacement 179 cu in (2930 ml) Starting  
system 12 volt Lubrication pressure Air cleaner  
two paper elements Oil filter one full flow cartridge  
Oil cooler engine coolant heat exchanger for  
crankcase oil, radiator for hydraulic and transmission  
oil Fuel filter one paper element Muffler  
underhood Exhaust vertical Cooling medium  
temperature control thermostat and variable speed  
fan

**CHASSIS:** Type 2WD and front wheel assist Serial  
No. HJH297332 Tread width rear 48.5" (1232 mm)  
to 76.7" (1949 mm) front: 2WD - 56.7" (1439 mm) to  
63.3" (1607 mm), FWA - 48.7" (1236 mm) to 76.6"  
(1945 mm) Wheel base 2WD - 83.8" (2130 mm) FWA  
- 81.3" (2065 mm) Hydraulic control system direct  
engine drive Transmission selective gear fixed ratio  
Nominal travel speeds (30 km/h transmission) mph  
(km/h) first 0.39 (0.63) second 0.58 (0.93) third 0.85  
(1.37) fourth 1.26 (2.03) fifth 1.63 (2.63) sixth 2.00  
(3.22) seventh 2.43 (3.91) eighth 2.98 (4.79) ninth  
3.57 (5.75) tenth 4.37 (7.04) eleventh 5.30 (8.53)  
twelfth 5.77 (9.28) thirteenth 6.49 (10.44) fourteenth  
8.60 (13.84) fifteenth 12.64 (20.34) sixteenth 18.72  
(30.13) reverse 0.38 (0.61), 0.56 (0.90), 0.83 (1.33),  
1.22 (1.97), 1.58 (2.54), 1.93 (3.11), 2.36 (3.79), 2.88  
(4.64), 3.46 (5.57), 4.24 (6.82), 5.13 (8.26), 5.59  
(8.99), 6.28 (10.11), 8.33 (13.40), 12.24 (19.70),  
18.14 (29.19) Clutch dual dry disc operated by foot  
pedal Brakes wet disc hydraulically operated by two  
foot pedals which can be locked together Steering  
hydrostatic Power take-off 540 rpm at 2196 engine  
rpm or 1000 rpm at 2260 engine rpm Unladen  
tractor mass 2WD - 5895 lb (2675 kg), FWA - 6425  
lb (2915 kg)

# **DRAWBAR PERFORMANCE(40 km/h trans.)**

## **BALLASTED - FRONT DRIVE ENGAGED**

### **FUEL CONSUMPTION CHARACTERISTICS**

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Temp.°F cool- ing med	Temp.°C Air dry bulb	Barom. inch Hg (kPa)	
75% of Pull at Maximum Power—Five Hours 10th (3M Hi) Gear									
29.4 (21.9)	1990 (8.86)	5.54 (8.91)	2369	3.5	0.629 (0.383)	11.12 (2.19)	183 (84)	66 (19)	30.1 (102.0)
MAXIMUM POWER IN SELECTED GEARS									
5th (1M Lo) Gear									
32.2 (24.0)	6595 (29.34)	1.83 (2.95)	2379	14.9	0.585 (0.356)	11.99 (2.36)	179 (82)	64 (18)	30.3 (102.5)
6th (1M Hi) Gear									
36.2 (27.0)	6315 (28.10)	2.15 (3.46)	2255	13.5	0.565 (0.343)	12.39 (2.44)	181 (83)	66 (19)	30.3 (102.5)
7th (2M Lo) Gear									
36.3 (27.1)	4865 (21.65)	2.80 (4.50)	2253	8.0	0.574 (0.349)	12.18 (2.40)	183 (84)	64 (18)	30.3 (102.5)
8th (2M Hi) Gear									
38.1 (28.4)	4095 (18.21)	3.49 (5.61)	2242	6.0	0.534 (0.325)	13.10 (2.58)	179 (82)	68 (20)	30.3 (102.5)
9th (3M Lo) Gear									
38.4 (28.6)	3345 (14.87)	4.30 (6.92)	2256	4.5	0.542 (0.330)	12.89 (2.54)	181 (83)	64 (18)	30.3 (102.5)
10th (3M Hi) Gear									
37.3 (27.8)	2645 (11.77)	5.28 (8.50)	2248	3.7	0.551 (0.335)	12.69 (2.50)	183 (84)	64 (18)	30.3 (102.5)
11th (4M Lo) Gear									
36.4 (27.1)	2150 (9.57)	6.34 (10.20)	2231	3.1	0.562 (0.342)	12.44 (2.45)	181 (83)	63 (17)	30.3 (102.5)
12th (1 Hi) Gear									
36.8 (27.4)	1950 (8.68)	7.07 (11.38)	2263	2.9	0.553 (0.337)	12.64 (2.49)	181 (83)	64 (18)	30.3 (102.5)
13th (4 M Hi) Gear									
33.0 (24.6)	1585 (7.04)	7.82 (12.59)	2225	2.3	0.623 (0.379)	11.22 (2.21)	183 (84)	64 (18)	30.3 (102.5)
14th (2 Hi) Gear									
31.9 (23.8)	1130 (5.03)	10.58 (17.02)	2268	1.7	0.643 (0.391)	10.87 (2.14)	183 (83)	63 (17)	30.3 (102.5)

**REPAIRS AND ADJUSTMENTS:** No repairs or adjustments

**REMARKS:** All test results were determined from observed data obtained in accordance with official OECD test procedures. This tractor did not meet the manufacturer's claim of 5258 lbs (2385 kg) 3 point lift capacity. The performance results on this summary were taken from OECD tests conducted under the Code I Test procedure.

We, the undersigned, certify that this is a true summary of data from OECD Reports No. **2156** and **2157**, Nebraska Summary 450, August 19, 2005.

Leonard L. Bashford  
Director

M.F. Kocher  
J.A. Smith  
W.P. Campbell  
Board of Tractor Test Engineers

## **JX 1060C-FWA(40 km/h transmission)**

### **TIRES, BALLAST AND WEIGHT**

		<b>With Ballast</b>	<b>Without Ballast</b>
<b>Rear Tires</b>	-No., size, ply & psi (kPa)	Two 16.9R30; **,19 (135)	Two 16.9R30; **,19 (135)
<b>Ballast</b>	-Liquid (total)	None	None
	-Cast Iron (total)	440 lb (200 kg)	None
<b>Front Tires</b>	-No., size, ply & psi (kPa)	Two 11.2R24; **,17 (115)	Two 11.2R24; **,17 (115)
<b>Ballast</b>	-Liquid (total)	None	None
	-Cast Iron (total)	640 lb (290 kg)	None
<b>Height of Drawbar</b>		19.3 in (490 mm)	19.3 in (490 mm)
<b>Static Weight with Operator</b>	-Rear	4560 lb (2070 kg)	4285 lb (1945 kg)
	-Front	3110 lb (1410 kg)	2305 lb (1045 kg)
	-Total	7670 lb (3480 kg)	6590 lb (2990 kg)

## DRAWBAR PERFORMANCE(30 km/h trans.)

### BALLASTED - 2WD

#### FUEL CONSUMPTION CHARACTERISTICS

Power Hp (kW)	Drawbar pull lbs (kN)	Speed mph (km/h)	Crank- shaft speed rpm	Slip %	Fuel Consumption lb/hp.hr (kg/kW.h)	Fuel Consumption Hp.hr/gal (kW.h/l)	Temp.°F (°C) cool- ing med	Air dry bulb (°C)	Barom. inch Hg (kPa)
<b>75% of Pull at Maximum Power—Five Hours 10th (3 MHi) Gear</b>									
31.3 (23.4)	2705 (12.04)	4.34 (6.99)	2399	6.1	0.508 (0.309)	13.76 (2.71)	178 (81)	55 (13)	30.1 (102.0)

#### MAXIMUM POWER IN SELECTED GEARS

<b>7th (2 MLo) Gear</b>									
29.6 (22.1)	5055 (22.49)	2.20 (3.54)	2406	15.0	0.533 (0.324)	13.11 (2.58)	180 (82)	55 (13)	29.9 (101.4)
<b>8th (2M Hi) Gear</b>									
34.9 (26.0)	4935 (21.95)	2.65 (4.26)	2355	14.5	0.525 (0.319)	13.32 (2.62)	180 (82)	57 (14)	29.9 (101.4)
<b>9th (3M Lo)Gear</b>									
37.0 (27.6)	4430 (19.70)	3.14 (5.05)	2291	12.9	0.533 (0.324)	13.11 (2.58)	178 (81)	55 (13)	29.9 (101.4)
<b>10th (3 M Hi) Gear</b>									
38.2 (28.5)	3600 (16.01)	3.98 (6.40)	2273	9.3	0.531 (0.323)	13.16 (2.59)	180 (82)	57 (14)	29.9 (101.4)
<b>11th (4 M Lo)Gear</b>									
39.0 (29.1)	2975 (13.24)	4.92 (7.92)	2262	6.9	0.518 (0.315)	13.50 (2.66)	178 (81)	57 (14)	29.9 (101.4)
<b>12th (1 Hi) Gear</b>									
37.7 (28.2)	2615 (11.64)	5.41 (8.71)	2259	6.0	0.534 (0.325)	13.10 (2.58)	180 (82)	57 (14)	29.9 (101.4)
<b>13th (4 M Hi) Gear</b>									
37.7 (28.1)	2335 (10.39)	6.06 (9.75)	2241	5.1	0.540 (0.328)	12.95 (2.55)	178 (81)	55 (13)	29.9 (101.4)
<b>14th (2 Hi) Gear</b>									
34.5 (25.7)	1565 (6.96)	8.26 (13.29)	2254	3.8	0.589 (0.358)	11.87 (2.34)	180 (82)	55 (13)	29.9 (101.4)

## JX 1060C-2WD (30 km/h transmission)

<b>TIRES, BALLAST AND WEIGHT</b>		<b>With Ballast</b>	<b>Without Ballast</b>
<b>Rear Tires</b>	-No., size, ply & psi (kPa)	Two 16.9R30; **, 19 (130)	Two 16.9R30; **, 19 (130)
<b>Ballast</b>	-Liquid (total)	None	None
	-Cast Iron (total)	440 lb (200 kg)	None
<b>Front Tires</b>	-No., size, ply & psi (kPa)	Two 7.50-16; 8; 44 (300)	Two 7.50-16; 8; 44 (300)
<b>Ballast</b>	-Liquid (total)	None	None
	-Cast Iron (total)	640 lb (290 kg)	None
<b>Height of Drawbar</b>		26.4 in (670 mm)	26.4 in (670 mm)
<b>Static Weight with Operator</b>	-Rear	4345 lb (1970 kg)	4035 lb (1830 kg)
	-Front	2800 lb (1270 kg)	2030 lb (920 kg)
	-Total	7145 lb (3240 kg)	6065 lb (2750 kg)

TRACTOR SOUND LEVEL WITH CAB	FWA dB(A)	2WD dB(A)
At no load in 9th (3M Lo) gear	80.0	80.0
Bystander in 16th (4 Hi) gear	82.0	82.8

#### CENTER OF GRAVITY - 2WD

Horizontal distance forward from centerline of rear wheels	28.1" (713 mm)
Vertical distance above roadway	32.0" (814 mm)
Horizontal distance from center of rear wheel tread	0.4" (10 mm) to the left

#### CENTER OF GRAVITY - FWA

Horizontal distance forward from centerline of rear wheels	28.4" (722 mm)
Vertical distance above roadway	31.6" (803 mm)
Horizontal distance from center of rear wheel tread	0.3" (8 mm) to the left

#### TURNING ON A CONCRETE SURFACE (2WD)

Turning radius—without brake right 141" (3.58 m) left 139" (3.53 m)
Turning space radius—without brake right 145" (3.68 m) left 143" (3.63 m)

#### TURNING ON A CONCRETE SURFACE (FWA)

Turning radius—without brake right 140" (3.56 m) left 140" (3.56 m)
Turning space radius—without brake right 146" (3.70 m) left 146" (3.70 m)

### THREE POINT HITCH PERFORMANCE (OECD Static Test)

#### CATEGORY: II

Quick Attach: None

Maximum force exerted through whole range: 3955 lbs (17.6 kN)

i) Opening pressure of relief valve: NA

Sustained pressure with relief valve open: 3020 psi (208 bar)

High flow option  
3000 psi (207 bar)

ii) Pump delivery rate at minimum pressure: 13.8 GPM (52.1 l/min)

16.9 GPM (63.9 l/min)

iii) Pump delivery rate at maximum

hydraulic power:

10.0 GPM (37.8 l/min) 14.9 GPM (56.4 l/min)

Delivery pressure:

2875 psi (198 bar) 2340 psi (161 bar)

Power:

16.8 HP (12.5 kW) 20.3 HP (15.2 kW)

### THREE POINT HITCH PERFORMANCE (SAE Static Test)

Observed maximum pressure psi.(bar)

3030 (209)

Location:

hydraulic pump

Hydraulic oil temperature: °F (°C)

114 (45)

Location:

hydraulic sump

Category:

II

Quick attach:

none

System pressure 2730 psi (188 Bar)

Hitch point distance to ground level in. (mm)	14.6 (370)	19.3 (490)	24.2 (615)	28.9 (735)	33.9 (860)	38.6 (980)
Lift force on frame lb	4800	5255	5280	4975	4630	4320
" " " " " " (kN)	(21.4)	(23.3)	(23.5)	(22.1)	(20.6)	(19.2)

### HITCH DIMENSIONS AS TESTED—NO LOAD

	SAE TEST inch	mm	OECD TEST inch	mm
A	27.2	690	27.4	695
B	10.0	255	10.0	255
C	12.3	312	12.3	312
D	10.9	276	10.9	276
E	14.2	361	12.1	308
F	7.5	189	7.5	189
G	27.2	690	27.4	695
H	1.2	30	1.2	30
I	13.4	340	13.6	345
J	19.7	501	19.9	506
K	20.6	523	20.6	523
L	40.7	1035	40.7	1035
M	21.7	550	21.7	550
N	34.6	880	34.6	880
O	14.6	370	14.6	370
P	38.7	984	43.9	1116
Q	39.8	1010	39.8	1010
R	22.4	570	22.6	573

